ENTREPRENEURIAL SKILLS, IDEA GENERATION, OPPORTUNITY RECOGNITION IN DETERMINING THE ENTREPRENEURIAL MOTIVATION AMONG UNIVERSITY STUDENTS IN KOTA KINABALU, SABAH

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PERPUSTAKAAN UNIVERSITI MALAYSIA SABAH

SCHOOL OF BUSINESS AND ECONOMIC UNIVERSITI MALAYSIA SABAH 2013



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UNIVERSITI MALAYSIA SABAH

DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION

SCHOOL OF BUSINESS AND ECONOMIC UNIVERSITI MALAYSIA SABAH 2013



UNIVERSITI MALAYSIA SABAH

BORANG PENGESAHAN TESIS

JUDUL KAJIAN: ENTREPRENEURIAL SKILLS, IDEA GENERATION, OPPORTUNITY RECOGNITION IN DETERMINING THE ENTREPRENEURIAL MOTIVATION AMONG UNIVERSITY STUDENTS IN KOTA KINABALU, SABAH

IJAZAH: DEGREE OF MASTER OF BUSINESS ADMINISTRATION

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ACKNOWLEDGEMENT

First and foremost, I wish to give my greatest and sincere gratitude to Dr. Ramraini Ali Hassan, my supervisor. She has offered her guidance and advices through her vast knowledge and experiences in her field throughout this study. In the absence of which I doubt that this research can be completed.

Next on my list, I wish to acknowledge Dr. Stephen L. Sondoh JR, my lecturer in research methodology course. He had provided suggestions and advices throughout I processing the data.

Finally, I would like to thank my parents and friends for their understanding and supports throughout my study. Deepest gratitude to everyone who makes this study a success.



ABSTRACT

The purpose of this study is to examine entrepreneurial skills, idea generation, and opportunity recognition in determining the entrepreneurial motivation among university students in Kota Kinabalu, Sabah. The study also aims to find out the differences between demographic factors (gender, ethnicity and field of study) and entrepreneurial motivation. The data was collected from 172 undergraduate and postgraduate students in Universiti Malaysia Sabah, Universiti Teknologi Mara, Universiti Tun Abdul Razak and Open University Malaysia in Kota Kinabalu, Sabah by using questionnaire. The results show that there is difference between science and non-science students in entrepreneurial motivation. Opportunity recognition is found to be significant on entrepreneurial motivation. However, entrepreneurial skills and idea generation do not have significant effect on entrepreneurial motivation. This research may be beneficial to policy makers and students on the perception of what variables they need to concern in terms of motivation to start up a business.



ABSTRAK

Kemahiran Keusahawanan, Penjanaan Idea, Pengenalan Peluang dalam Menentukan Motivasi Keusahawanan di kalangan Pelajar Universiti di Kawasan Kota Kinabalu, Sabah

Tujuan kajian ini adalah untuk mengkaji kemahiran keusahawanan, penjanaan idea, dan pengenalan peluang dalam menentukan motivasi keusahawanan di kalangan pelajar universiti di Kota Kinabalu, Sabah. Kajian ini juga bertujuan untuk mencari perbezaan di antara faktor demografi (jantina, etnik dan bidang pengajian) dengan motivasi keusahawanan. Data kajian adalah diperolehi daripada 172 pelajar ijazah dan lepasan ijazah dari empat universiti di Universiti Malaysia Sabah, Universiti Teknologi Mara, Universiti Tun Abdul Razak dan Open University Malaysia di Kota Kinabalu, Sabah dengan menggunakan kaedah soal selidik. Hasil kajian menunjukkan bahawa terdapat perbezaan di antara pelajar sains dan bukan sains dalam aspek motivasi keusahawanan. Pengenalan peluang didapati penting dalam aspek motivasi keusahawanan. Di sebaliknya, kemahiran keusahawanan dan penjanaan idea tidak mempunyai kesan yang ketara ke atas aspek motivasi keusahawanan. Kajian ini boleh memanfaatkan penggubal dasar dan pelajar dalam persepsi pembolehubah yang mereka perlu perhatikan untuk memulakan perniagaan.



TABLE OF CONTENTS

		PAGE
TITL	.E	i
DEC	LARATION	li .
CER	TIFICATION	iii
ACK	NOWLEDGEMENT	iv
ABS	TRACT	V
ABS	TRAK	vi
TABI	LE OF CONTENT	VII
LIST	OF FIGURES	×
LIST	OF TABLES	xi
CHA	PTER 1: INTRODUCTION	
1.1	Introduction	1
1.2	Research Problem	2
1.3	Research Questions	5
1.4	Research Objectives	5
1.5	Scope of Study	6
1.6	Significant of Study	6
1.7	Definition of Key Terms	7
1.7.1	Entrepreneur	7
1.7.2	Entrepreneurial Motivation	7
1.7.3	Entrepreneurial Skills	7
1.7.4	Idea Generation	8
1.7.5	Market Opportunity	8
1.8	Organization of Chapters	8
CHA	PTER 2: LITERATURE REVIEW	
2.1	Introduction	9
2.2	Theoretical Background	9
2.3	Demographic	10
2.3.1	Gender	10
2.3.2	Ethnicity	11
2.3.3	Field of Study	12
2.4	Entrepreneurial Skills	12
2.5	Idea Generation	12



2.6	Opportunity Recognition	14
2.7	Entrepreneurial Motivation	15
2.8	Summary	16
CHAP	TER 3: RESEARCH METHODOLOGY	
3.1	Introduction	17
3.2	Research Framework	17
3.3	Description of Variables	18
3.3.1	Description of Independent Variables	18
3.3.2	Description of Dependent Variable	20
3.4	Research Hypothesis	20
3.5	Research Design	22
3.6	Unit of Analysis	22
3.7	Sampling Design	22
3.8	Instrument Design	23
3.9	Data Collection Methods	25
3.10	Data Analysis Methods	25
3.11	Summary	25
CHAP	TER 4: FINDINGS AND ANALYSIS	
4.1	Introduction	26
4.2	Profile of Respondents	26
4.3	Analysis for Comparison on Variables	28
4.3.1	T-test for Gender	28
4.3.2	T-test for Field of Study	29
4.3.3	One-way analysis of variance (ANOVA) for Ethnicity	30
4.4	Factor Analysis	31
4.4.1	Factor Analysis for Entrepreneurial Skills	32
4.4.2	Factor Analysis for Idea Generation	33
4.4.3	Factor Analysis for Opportunity Recognition	35
4.4.4	Factor Analysis for Entrepreneurial Motivation	35
4.5	Reliability Analysis	37
4.6	Descriptive Analysis	38
4.7	Correlation Analysis	39
4.8	Multiple Regression Analysis	40
4.9	Summary	43
CHAP	TER 5: DISCUSSION AND CONCLUSION	
5.1	Introduction	45
5.2	Recapitulation of the Study	45
5.3	Discussion	46



5.3.1	Gender and Entrepreneurial Motivation	47
5.3.2	Ethnicity and Entrepreneurial Motivation	47
5.3.3	Field of Study and Entrepreneurial Motivation	48
5.3.4	Entrepreneurial Skills and Entrepreneurial Motivation	48
5.3.5	Idea Generation and Entrepreneurial Motivation	49
5.3.6	Opportunity Recognition and Entrepreneurial Motivation	50
5.4	Implications of Study	51
5.4.1	Theoretical Implication	51
5.4.2	Managerial Implication	52
5.5	Limitations of Study	52
5.6	Suggestions for Future Research	53
5.7	Conclusion	53
REFE	RENCES	55
APPE	NDIX A: RESEARCH QUESIONNAIRE	61
APPE	NDIX B: T-TEST	69
APPE	NDIX C: ONE-WAY ANOVA	71
APPE	NDIX D: FACTOR ANALYSIS	72
APPE	NDIX E: RELIABILITY ANALYSIS	78
APPE	NDIX F: DESCRIPTIVE ANALYSIS	82
APPE	NDIX G: CORRELATION ANALYSIS	83
APPENDIX H: MULTIPLE REGRESSION ANALYSIS		84



LIST OF FIGURES

		PAGE
Figure 3.1	Schematic Diagram of the Research Framework	18



LIST OF TABLES

		PAGE
Table 3.1	Summary of Variables Used in Hypothesis	20
Table 3.2	Summary of Instrument on Entrepreneurial Motivation	24
Table 4.1	Profile of Respondents	27
Table 4.2	Summary of Independent T-test for Gender	29
Table 4.3	Summary of Independent T-test for Field of Study	30
Table 4.4	Summary of One-way ANOVA for Ethnicity	31
Table 4.5	Summary of Factor Analysis for Entrepreneurial Skills	33
Table 4.6	Summary of Factor Analysis for Idea Generation	34
Table 4.7	Summary of Factor Analysis for Opportunity Recognition	35
Table 4.8	Summary of Factor Analysis for Entrepreneurial Motivation	36
Table 4.9	Reliability Analysis for Variables	38
Table 4.10	Descriptive Analysis for Variables	39
Table 4.11	Correlation Analysis for Variables	40
Table 4.12	Regression Analysis of Demographic Variables with Entrepreneurial Motivation	41
Table 4.13	Regression Analysis of Main Variables with Entrepreneurial Motivation	42
Table 4 14	Pacults of Hypotheses Testing	13



CHAPTER 1

INTRODUCTION

1.1 Introduction

In recent years, there is an increasing evidence that more and more students are becoming interested in business ownership and/or actually starting up in business. Entrepreneurship concept and practice have been growing importantly in all countries including Malaysia. Kuratko and Hodgetts (2004) defined entrepreneurship as a dynamic process of vision, change and creation requires an application of passion and energy towards the creation and implementation of new ideas and creative solutions. In the meanwhile, Naser *et al.* (2009) describe entrepreneur as a person who starts a new business venture. He/She is a person who can find opportunities and has the ability to develop those opportunities into profit-making business. From the above definition, it can be concluded that entrepreneurship is the process of start up a business or self-employment and entrepreneur is who creates this business.

Nowadays, entrepreneurship activity in Malaysia has been growing significantly. Many universities and colleges provide a variety of entrepreneurship courses. For example, Universiti Tun Abdul Razak founded the Bank Rakyat School of Business and Entrepreneurship (BRSBE) to provide quality entrepreneurship education in Malaysia (Global Entrepreneurship Monitor, 2012). The more and more attention on entrepreneurship education is due to the importance of



entrepreneurship in the creation and growth of new businesses. According to Companies Commission of Malaysia, the total number of registered companies and businesses in Malaysia has been increasing from 44,202 and 271,414 in 2010 to 45,441 and 324,761 in 2012. Even though, not all the new companies and businesses are started up by fresh graduates, the government should still encourage the entrepreneurship activity among universities in order to help students to involve and create it as one of their career option.

1.2 Research Problem

In the past decade, there has been a growing concern about the unemployment among graduates. In Malaysia, there are a growing number of education institutes including colleges as well as public and private universities. These higher education institutes produce a large numbers of graduates every year. According to the Ministry of Higher Education, there were 74,439 graduates in Malaysia in 2010 and 42,955 or 24.62 % of them were unemployed. However, the number of unemployed graduates presents an increasing trend which 44,391 or 24.05 % out of 184,581 graduates in Malaysia were unemployed in 2011. Most of the graduates are bachelor's degree holders in various fields. The Labour Force Survey Report Malaysia 2011 reported there are totally 25.3 % unemployed persons with tertiary education background which has increased 4.5 % from year 2010. Herein, male accounts for 22.5 % and female accounts for 44.4 %. The unemployment rate for female graduates has been rising rapidly than male graduates since early 1990s (Noor, 2011). Therefore, the historical data shows unemployment problem among university students has become critical and female graduates are more likely to be unemployed.



Under the 10th Malaysia Plan (2011-2015), one of the main problems faced by Malaysia is lack of a substantial pool of skilled labour that possesses management, finance, marketing and ICT application skills to boost SME growth. Previous studies found that the unemployment problem of graduates in Malaysia may due to the employability skills of the graduates. Noor (2011) indicated that most public universities had tried to improve students' skills such as communication, analytical thinking, intelligence, independence, leadership, computer skills and so on in order to improve students' competencies to adapt the employment environment. However, the results have not yet been seen. University students who expose to varied knowledge research activities are more likely to have potential for innovation and economic development. Therefore, lack of entrepreneurial skills such as business planning, risk assessment, team building, negotiation as well as basic management and technical skills has become one of the reasons that lead to unemployment of students. This reason can turn into new tasks for universities nowadays (OECD, 2011).

One of the obstacles for graduates to pursue entrepreneurial activities is idea generation. Aspiring entrepreneurs who do not have a compelling business idea to pursue is bound to fail (Lurie, 2004). Smith and Beasley (2011) conducted a research to investigate seven graduates who pursued their own businesses and found out creative and innovative idea is one of the enabling factors for self-employment. Even though entrepreneurship education is more and more popular nowadays in the universities, graduates are still having problem in generating ideas to start a business. In addition, there have been limited empirical researches that explore the relationship between idea generation and entrepreneurial motivation. Dyer et al. (2008) found one's ability to generate novel ideas implied one's behaviors on spawning the ideas for novel business ventures.



Idea generation is the major problem that students usually face before starting their businesses.

According to Department of Statistics Malaysia, Sabah has the highest unemployment rate among all the states in Malaysia which maintains an average of 5.5 % unemployment rate from 2009 to 2012 while the average rate of other states in Malaysia is 2.968 %. Therefore, the government has launched the Government Transformation Programme (GTP) and the New Economic Model (NEM) to boost the economy in order to achieve the target of a developed high-income economy in 10 years. In accordance to this, the 10MP supports the economic growth by developing SMEs and encouraging innovation. The government will improve the SME-University Internship Programme in order to achieve 2,000 new businesses created by students and graduates by the end of the Plan period. Moreover, the government will enhance the support system for SME including increasing acceptance of new venture products and services, supporting innovation, improving outreach and enhancing financial support. These actions may provide opportunities to create new ventures and explore more potential entrepreneurs. Furthermore, the support from the government may promote the self-employment rate and become another pathway for graduates to solve unemployment problem. In order to fulfill the requirements and expectations of the government, it is necessary to investigate students' perception or recognition of opportunity which may eventually motivate them to pursue the entrepreneurial activities. In conclusion, this study will investigate how entrepreneurial skills, idea generation and opportunity recognition influence entrepreneurial motivation among university students.



1.3 Research Questions

The specific research questions of this research are outlined as follows:

- I. Is there a difference between male's and female's entrepreneurial motivation among university students?
- II. Is there a difference among ethnic groups on entrepreneurial motivation?
- III. Is there a difference between science and non-science streams university students on entrepreneurial motivation?
- IV. Is there a relationship between entrepreneurial skills and entrepreneurial motivation among university students?
- V. Is there a relationship between idea generation and entrepreneurial motivation among university students?
- VI. Is there a relationship between opportunity recognition and entrepreneurial motivation among university students?

1.4 Research Objectives

The specific objectives of this research are outlined as below:

- To investigate the difference between male's and female's entrepreneurial motivation.
- II. To investigate the difference among ethnic groups on entrepreneurial motivation.



- III. To investigate the effect of entrepreneurial skills on entrepreneurial motivation of students to start businesses.
- IV. To investigate the effect of idea generation on entrepreneurial motivation of students to start businesses.
- V. To investigate the effect of opportunity recognition on entrepreneurial motivation of students to start businesses.

1.5 Scope of Study

The scope of this study is to investigate the entrepreneurial motivation among university students in Kota Kinabalu, Sabah. The research will be conducted among undergraduate students and postgraduate students who have been exposed to any entrepreneurship subject from both science and non-science streams in four universities in Kota Kinabalu, Sabah which are Universiti Malaysia Sabah, Universiti Teknologi Mara, Universiti Tun Abdul Razak and Open University Malaysia.

1.6 Significant of Study

This study has both practical and theoretical implications. First, this study can provide insight to Sabah policy makers and planners on how to decrease the unemployment rate since Sabah has the highest unemployment rate among all the states in Malaysia. In addition, the government can understand the reasons behind students that have interest to be entrepreneurs and how to enhance the encouragement for them to pursue their interest. Moreover, this study can assist the university in obtaining a better picture in developing entrepreneurship courses and encouraging entrepreneurial activities among students. Secondly, most of the researches have focused on entrepreneurial intention among students by applying the motivation



model generally. This study measures students' entrepreneurial motivation by using different variables.

1.7 Definition of Key Terms

The key terms used in this study have specific meanings. The definitions of some key terms are outlined in the following.

1.7.1 Entrepreneur

Kuratko (2009) defined that entrepreneur is an innovator or developer who recognizes and seizes opportunities. He/She will converts these opportunities into workable/marketable ideas and add value through time, effort, money, or skills. He/She assumes the risks of the competitive marketplace to implement these ideas and realizes the rewards from these efforts.

1.7.2 Entrepreneurial Motivation

Entrepreneurial motivations are a set of factors that motivates individuals to engage in entrepreneurship (Yalcin and Kapu, 2008).

1.7.3 Entrepreneurial Skills

Entrepreneurial skill can be defined as the ability to create something new and valuable. It requires time and effort as well as assumes that financial, psychic and social risks may happen. But rewards of monetary and personal satisfaction and independence will be received. (Hisrich and Peters, 2002).



1.7.4 Idea Generation

Idea generation is the process involving generating, developing and communicating idea.

1.7.5 Opportunity Recognition

Opportunity recognition is a critical process in entrepreneurship which refers to the perceived possibility of starting new businesses or exploiting the existing businesses to a profit potential condition (Christensen, 1989).

1.8 Organization of Chapters

Chapter 1 is the overview of the research by presenting the problem statement, objectives, scope and significant of the study. Chapter 2 is the review of previous literatures of the relationship between independent variables (entrepreneurial skills, idea generation and opportunity recognition) and dependent variable (entrepreneurial motivation). Chapter 3 illustrates the research framework and develops with six hypotheses. Research design, unit of analysis, sampling design, instruments design, data collection method and data analysis method is also addressed in this chapter. Chapter 4 presents the results and findings of the study. Chapter 5 contains the discussion and limitations of research as well as suggestion for future research.



CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter addresses the previous researches on entrepreneurial motivation and the factors that influence it such as demography, entrepreneurial skills, idea generation and opportunity recognition. This chapter is divided into two main sections which are the theoretical background and past researches on the variables.

2.2 Theoretical Background

The theory of motivation in entrepreneurship has been discussed in the historical literature. Vroom's (1964) put forward an expectancy framework to explain that one's decision on a behavior is because of they are motivated by other alternative behaviors which may help them to achieve their expected outcome. People are driven by many motivations to found businesses. Most of the prior studies classified motivations into pull and push factors (Hakim, 1989; Weatherston, 1995). A recent research by Kirkwood (2009) found that there is low gender differences when male and female are motivated by both pull factors which includes independence, money, challenge/achievement, saw opportunity and lifestyle and push factors which includes job satisfaction, changing world of work, helped by employer and children.

Another antecedent research by Naffziger et al. (1994) proposed a motivation model with five factors which are personal characteristics, personal



environment, personal goals, business environment and idea to study entrepreneurial motivation. Shane *et al.* (2003) reviewed some studies and found other major factors such as need for achievement, risk taking, tolerance of ambiguity, and locus of control and suggested more motivations should be studied to understand the entrepreneurial process. Segal *et al.* (2005) added on three more factors, tolerance for risk, perceived feasibility and net desirability to predict the entrepreneurial motivation.

In this study, three unobserved critical factors, entrepreneurial skills, idea generation and opportunity recognition are being tested to study the entrepreneurial motivation among university students.

2.3 Demographic

Demographic and socio-economic characteristics such as age, gender, qualification, work experience and so on are significant factors in many economies (Global Entrepreneurship Monior, 2012). This study used gender, ethnicity and field of study as demographic variables to investigate the significance towards entrepreneurial motivation.

2.3.1 Gender

Many scholars of entrepreneurship argued that gender plays an important role on people's willingness to be entrepreneurs. Kolvereid and Isaksen (2006) indicated that more males intend to be self-employed than females. This point of view is supported by Laspita *et al.* (2007) and Global Entrepreneurship Monitor (2012). A research conducted by Markov and Izgarjan (2010) to study the perception of entrepreneurship among male and female students also supported that gender factor



is able to influence students' entrepreneurial aspirations whereby male students (52.9 %) are much more willing to start new venture after graduates than female students (37.4 %). Other researches argued female has stronger self-efficacy in opportunity entrepreneurship in Singapore (Wong and Lee, 2005) and has greater intention to become self-employed (Lee and Wong, 2004). However, Ahmad *et al.* (2006) and Cohoon *et al.* (2010) found there is no significant on gender and motivational factors.

2.3.2 Ethnicity

There are many studies concerned entrepreneurial motivation based on ethnic differences. Urban and Vuuren (n.d.) studied the impact of ethnicity and entrepreneurial self-efficacy on entrepreneurial motivation and found successful entrepreneurs are more rely on personal context than social culture. This is supported by McGrath, Macmillan and Scheinberg (1992). However, Busenitz and Lau (1997) argued that individuals with different cultures have impact on entrepreneurship.

Malaysia is a multi-ethnic country. Noor *et al.* (2013) investigated 180 Malaysian youth and found out three ethnic groups, Malay, Chinese and Indian had no difference on entrepreneurship trend. Nevertheless, another study done by Nor, Ezlika and Ong (2005) indicated a certain extent characteristics of entrepreneurs are significantly different across Malay and Chinese groups in Malaysia whereby Malays tend to be work oriented while Chinese are power oriented.



REFERENCES

- Adeyemo, S. A. 2009. Understanding and Acquisition of Entrepreneurial Skills: A Pedagogical Re-Orientation for Classroom Teacher in Science Education. Journal of Turkish Science Education, 6(3): 57-65.
- Ahmad, Z. B. H. I., Mohd, F. B. M. Z. and Elsadig, M. A. 2006. A Study of Motivation In Business Start-Ups Among Malay Entrepreneurs. *International Business and Economics Research Journal*, **5** (2): 103-112.
- Busenitz, L. W. and Lau, C. M. 1997. A Cross-Cultural Cognitive Model of New Venture. *Entrepreneurship and Theory:* 25-39.
- Caliendo, M. and Kritikos, A. 2009. "I Want to, But I Also Need to": Start-Ups Resulting from Opportunity and Necessity. Institute for the Study of Labor (IZA).
- Caplan, R. D., Naidu, R. K. and Tripathi, R. C. 1984. Coping and Defending Constellations versus Components. *Journal of Health and Social Behavior*, 25: 303-320.
- Carsrud, A. and Brännback, M. 2011. Entrepreneurial Motivations: What do We Still Need to Know? *Journal of Small Business Management*, **49**(1): 9-26.
- Carter, S. and Shaw, E. 2006. Womens's *Business Ownership: Recent Research and Policy Developments*. Department of Trade and Industry.
- Choi, J. N. 2004. Individual and contextual predictors of creative performance: The mediating role of psychological processes. *Creativity Research Journal*, **16** (2-3): 187-199.
- Cohoon, J., Wadhwa, V. and Mitchell, L. 2010. Are Successful Women Entrepreneurs Different From Men? *Ewing Marion Kauffman Foundation*.
- Christensen, P. S. 1989. Strategy, Opportunity Identification and Entrepreneurship. Institute of Management, Aarhus University, Denmark.
- Dyer, J. H., Gregersen, H. B. and Christensen, C. 2008. Entrepreneur Behaviors, Opportunity Recognition, and the Origins of Innovative Ventures. *Strategic Entrepreneurship Journal*, **2**(4): 317-338.



- Fereidouni, H. G., Masron, T. A., Nikbin, D. and Amiri, R. E. 2010. Consequences of External Environment on Entrepreneurial Motivation in Iran. *Asian Academy of Management Journal*, **15**(2): 175-196.
- Fillis, I., and Rentschler, R. 2010. The Role of Creativity in Entrepreneurship. *Journal of Enterprising Culture*, **18**(01): 49-81.
- García-Morales, V. J., Llorens-Montes, F. J. and Verdú-Jover, A. J. 2006. Antecedents and Consequences of Organizational Innovation and Organizational Learning in Entrepreneurship. *Industrial Management & Data Systems*, **106**(1): 21-42.
- Glassman, B. S. 2009. Improving Idea Generation and Idea Management in Order to Better Manage the Fuzzy Front End of Innovation. PHD's Dissertation. University of Purdue.
- Gompers, P., Kovner, A., Lerner, J. and Scharfstein, D. 2006. Skill vs. Luck in Entrepreneurship and Venture Capital: Evidence from Serial Entrepreneurs (No. W12592). National Bureau of Economic Research.
- Grundstén, H. 2004. Entrepreneurial Intentions and the Entrepreneurial Environment: A Study of Technology-Based New Venture Creation. PHD's Dissertation. Helsinki University of Technology.
- Herrmann, K. 2008. Developing Entrepreneurial Graduates: Putting Entrepreneurship at the Centre of Higher Education. National Endowment for Science, Technology and the Arts, U.K.
- Hisrich, R. D., and Peters, M. P. 2002. Entrepreneurship. Boston: McGraw-Hill/Irwin.
- Integrated Design + Education + Arts Studio. 2011. *Idea Generation*. Institute for Creativity, Arts, and Technology.
- Ismail, A. Z. B. H., Zain, M. F. B. M. and Ahmed, E. M. 2011. A Study of Motivation in Business Start-Ups among Malay Entrepreneurs. *International Business & Economics Research Journal (IBER)*, **5**(2): 103-112.
- Kargwell, S. and Inguva, S. 2012. Factors Influencing the First Generation Entrepreneurs: An Analytical Study on the Graduates of UAE Universities. International Journal of Business and Social Science, 3(7): 143-149.
- Keat, O. Y., Selvarajah, C. and Meyer, D. 2011. Inclination towards Entrepreneurship among University Students: An Empirical Study of Malaysian University Students. *International Journal of Business and Social Science*, 2(4): 206-220.



- Kirkwood, J. 2009. Motivational Factors in a Push-pull Theory of Entrepreneurship. Gender in Management: An International Journal, 24(5): 346-364.
- Kolvereid, L. and Isaksen, E. 2006. New Business Start-Up and Subsequent Entry into Self-Employment. *Journal of Business Venturing*, **21**(6): 866-885.
- Kolvereid, L., & Moen, Ø. 1997. Entrepreneurship among Business Graduates: Does a Major In Entrepreneurship Make a Difference? *Journal of European Industrial Training*, 21(4): 154-160.
- Krueger Jr, N. F., Reilly, M. D. and Carsrud, A. L. 2000. Competing Models of Entrepreneurial Intentions. *Journal of Business Venturing*, **15**(5): 411-432.
- Kumar, V. K., Kemmler, D. and Holman, E. R. 1997. The Creativity Styles Questionnaire-Revised. *Creativity Research Journal*, **10** (1): 51-58.
- Kuratko, D. F. and Hodgetts, R. M., 2004. *Entrepreneurship, Theory, Process and Practice*. 6th ed. Ohio: Thomson, South-western.
- Labour Force Survey Report. 2012. Malaysia: Department of Statistics.
- Laspita, S., Scheiner, C. W., Chlosta, S., Brem, A., Voigt, K. I. and Klandt, H. 2007. Students' Attitude towards Entrepreneurship: Does Gender Matter? *Rev Manag Comp Int*, **8**(4): 92-118.
- Lee, S. H. and Wong, P. K. 2004. An Exploratory Study of Technopreneurial Intentions: A Career Anchor Perspective. *Journal of Business Venturing*, **19**(1): 7-28.
- Locke, E. A. and Baum, J. R. 2007. Entrepreneurial Motivation. The Psychology of Entrepreneurship, the Organizational Frontiers: 93-112.
- London, K. M. 2006. Integrating Idea Generation and Idea Evaluation in the Study of Group Creativity-Effects of Different Group Procedures on Brainstorming Effectiveness and Group Satisfaction. PHD's Dissertation. University of Claremont Graduate.
- Lurie, N. 2007. From Student to Entrepreneur. How to Generate and Evaluate Compelling Business Ideas Quickly. MBA Independent Study Project, Leeds School of Business.
- McGrath, R. G., MacMillan, I. C., & Scheinberg, S., 1992. Elitists, risk-takers, and rugged individuals? An exploratory analysis of cultural differences between



- entrepreneurs and non-entrepreneurs. *Journal of Business Venturing*, **7**(2), pp.115-135.
- Markov, S. and Izgarjan, A. 2010. Perception of the Entrepreneurship of the Male and Female Students at the University of Novi Sad. *Sociološki Pregled*, **44**(2): 325-336.
- Mejía, A. G., Laverde, F. P., Smida, A. and Cadet, B. 2008. The Entrepreneur's Motivation, Human and Financial Capital as Determining Factors of Growth for New Companies. *The Colombian Case*.
- Naser, K., Mohammed, R. & Nuseibeh, R., 2009. Factors that affect women entrepreneurs: evidence from an emerging economy. *International Journal of Organizational Analysis*, 17(3), pp.225-247.
- Noor, A. H. 2007. A cross cultural study of entrepreneurial competencies and entrepreneurial success in SMEs in Australia and Malaysia. PHD's Dissertation. University of Adelaide.
- Noor, A. I. 2011. Graduates' Characteristics and Unemployment. *International Journal of Business and Social Science*, **2**(16):94-102.
- Noor, H. A., Ramayah, T. and Sharifah, A. D. T. M. 2013. Unlocking The Entrepreneurial Propensity Among Prime-Age Malaysians: A Multi-Ethnic Analysis. *International Refereed Research Journal*, **4**(1): 1-6.
- Okpara, F. O. 2007. The Value of Creativity and Innovation in Entrepreneurship. Journal of Asia Entrepreneurship and Sustainability, III(2).
- Oosterbeek, H., Praag, M. V. and Ijsselstein, A. 2010. The impact of entrepreneurship education on entrepreneurship skills and motivation. *European Economic Review*, **54**: 442-254.
- Othman, M. N., Ghazali, E. and Cheng, O. C. 2005. Demographics and Personal Characteristics of Urban Malaysian Entrepreneurs: An Ethnic Comparison. *International Journal of Entrepreneurship and Innovation Management*, **5**(5): 421-440.
- Ozgen, E. 2003. Entrepreneurial Opportunity Recognition: Information Flow, Social and Cognitive Perspectives. Ph.D. Rensselaer Polytechnic Institute. Troy, New York.
- Partnering for Success in Fostering Graduate. 2011. OECD LEED Forum on Partnerships and Local Governance Handbook, 5.



- Pallant, J. 2011. SPSS Survival Manual. 4th ed. Australian: Allen & Unwin.
- Punia, R. K., Punia, D. and Hasija, R. C. (2012). Entrepreneurship among Students. *Environment and Ecology*, **30**(1): 172-178.
- Ramayah, T. and Harun, Z. 2005. Entrepreneurial intention among Universiti Sains Malaysia students. *International Journal of Management and Entrepreneurship*, **1**(1): 8-20.
- Rosa, P. J., Kodithuwakku, S. and Balunywa, W. 2006. Entrepreneurial Motivation in Developing Countries: What Does "Necessity" and "Opportunity" Entrepreneurship really Mean? Frontiers of Entrepreneurship Research, 26(20), 4.
- Ryan, R. 2000. Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. Contemporary Educational Psychology, 25(1): 54-67.
- Saif, R. K., Shaghayegh, M. and Samrena, J. 2013. Factors Affecting Entrepreneurial Intention among Graduate Students of Universiti Teknologi Malaysia. *International Journal of Business and Social Science*, **4**(2): 182-188.
- Segal, G., Borgia, D. and Schoenfeld, J. 2005. The Motivation to become an Entrepreneur. *International Journal of Entrepreneurial Behaviour & Research*, **11**(1): 42-57.
- Sekaran, U., and Bougie, R. 2012. Research Methods for Business. A Skill Building Approach. 5th ed. United Kingdom: A Wiley and Sons, Ltd.
- Shah, N. Z. 2008. Are graduates to be blamed? Unemployment of Computer Science Graduates in Malaysia. *Computer Science*, **3**: 19-5.
- Shane, S., Locke, E. A. and Collins, C. J. 2003. Entrepreneurial Motivation. *Human Resource Management Review*, **13**(2): 257-279.
- Smith, K. and Beasley, M. 2011. Graduate Entrepreneurs: Intentions, Barriers and Solutions. *Education+ Training*, **53**(8/9): 722-740.
- Stevens, G., Burley, J. and Divine, R., 1999. Creativity + business discipline = higher profits faster from new product development. *Journal of Product Innovation Management*, **16** (5), 455-468.
- Taormina, R. J. and Lao, S. K. 2007. Measuring Chinese Entrepreneurial Motivation:

 Personality And Environmental Influences. *International Journal of Entrepreneurial Behaviour & Research*, **13**(4), 200-221.



- The Economic Planning Unit. 2010. *Tenth Malaysia Plan: 2011-2015.* Putrajaya: Prime Minister's Department.
- Urban, B. 2006. Entrepreneurial self-efficacy in a multicultural society: Measures and ethnic differences. SA Journal of Industrial Psychology, 32(1).
- Verheul, I., Thurik, R., Hessels, J. and van der Zwan, P. 2010. Factors Influencing the Entrepreneurial Engagement of Opportunity And Necessity Entrepreneurs. EIM Research Reports H, 201011: 1-24.
- Wang, Y-L. 2008. Organizational Learning, Entrepreneurial Opportunity Recognition, and Innovation Performance in High Technology Firms in Taiwan. PHD's Dissertation. University of Illinois.
- Watson, G. E. H. 2004. A Situational Analysis of Entrepreneurship Mentors in South Africa. Master's Dissertation. University of South Africa.
- Weatherston, J. 2004. Academic Entrepreneurs: Is a Spin-Off Company too risky? Small Business Advancement National Center: 1-10.
- Wong, P. K. 2005. Antecedents for Entrepreneurial Propensity in Singapore. Singapore: NUS Entrepreneurship Centre.
- World Bank Group (Ed.). 2010. Doing Business 2011: Making a Difference for Entrepreneurs. World Bank Publications.
- Xavier, S. R., Kelley, D., Kew, J., Herrington, M., Vorderwülbecke, A. 2013. GEM 2012 Global Report. *Global Entrepreneurship Monitor*.
- Yalcin, S. and Kapu, H. 2008. Entrepreneurial Dimensions in Transitional Economies:

 A Review of Relevant Literature and the Case Of Kyrgyzstan. *Journal of Developmental Entrepreneurship*, **13**(02): 185-204.
- Yusof, M., Sandhu, M. S. and Jain, K. K. 2007. Relationship between Psychological Characteristics and Entrepreneurial Inclination: A Case Study of Students at University Tun Abdul Razak. *Journal of Asia Entrepreneurship and Austainability*, **3**(2), 12.
- Zahariah, M. Z., Amalina, M. A. and Erlane, K. G. 2010. Entrepreneurship Intention among Malaysian Business Students. *Canadian Social Science*, **6**(3): 34-44.
- Zimmerman, M. A. and Chu, H. 2010. Motivation, Success, and Problems of Entrepreneurs in Venezuela. *United States Association for Small Business and Entrepreneurship. Conference Proceedings*, 2010. 375-393.

